

# *Melacoryphus admirabilis* (Uhler) (Hemiptera: Lygaeidae) new to Canada, with additional Canadian provincial records for other Heteroptera

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## ABSTRACT

The lygaeid *Melacoryphus admirabilis* (Uhler) is recorded from Saskatchewan and new to Canada. New provincial records are given for 16 other species of Heteroptera, belonging to the families Alydidae, Artheneidae, Cymidae, Geocoridae, Lygaeidae, Miridae, Oxycarenidae, Rhyparochromidae and Tingidae.

## INTRODUCTION

Further research on collections of Canadian Heteroptera has resulted in the discovery of another species new to Canada. In addition, new provincial records have been established for 16 other species. Some of these significantly change the known distribution of species in Canada.

Data cited are those on specimen labels. The order follows Maw et al. (2000). Collection and Museum abbreviations used in the text are as follows:

CNC: Canadian National Collection of Insects, Agriculture and Agri-Food Canada,

Ottawa, ON (R.G. Foottit).

DBUC: Department of Biological Sciences, University of Calgary, Calgary, AB (J.E. Swann).

LC: D.J. Larson Private collection, Maple Creek, SK.

LM: Lyman Entomological Museum, Macdonald College, McGill University, Ste. Anne-de-Bellevue, QC (T. Wheeler).

UCCB: Department of Biology, University College of Cape Breton, Sydney, NS (D. McCorquodale).

## NEW RECORDS

### Family MIRIDAE

#### *Phytocoris eureka* Bliven

In Canada, previously only reported from British Columbia (Stonedahl 1988; Maw et al. 2000), but widely distributed in the western United States (Stonedahl 1988).

New provincial record. AB: 1♀, Kananaskis, U. of C. Field Station, 51° 0'49"N 114°12'01"W, 11-19.viii.2004 (L. Wooldridge) [DBUC].

### Family TINGIDAE

#### *Corythucha distincta* Osborn & Drake

In Canada, previously only reported from British Columbia (Parshley 1919; Downes 1925, 1927; MacNay 1952; Maw et al. 2000), but in the United States re-

corded south to California and in South Dakota (Froeschner 1988b).

New provincial record. AB: 1♂, Fish Creek Provincial Park, 50°54.406'N 114° 01.260'W, sweep of field near ranch house, 17.viii.2009 (J.E. Swann & G. Hull) [DBUC]; 1♂, Fish Creek Provincial Park, 50°54.594'N 114°01.698'W, sweep, 17.viii.2009 (J.E. Swann & G. Hull) [DBUC]; 1♂, Waterton Lakes National Pk., Cardston Entrance, Malaise, 13.viii.1989 (R. Longair) [DBUC].

#### *Corythucha salicata* Gibson

In Canada, reported from British Columbia, Manitoba, Northwest Territories, Ontario and Saskatchewan (Maw et al.

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2000). This species is confined to the Western Cordilleran region in the United States (Froeschner 1988b).

New provincial record. AB: 17♂ 6♀, Fish Creek Provincial Park, 50°54.594'N 114°01.698'W, sweep, 17.viii.2009 (J.E. Swann & G. Hull) [DBUC]; 2♂ Fish Creek Provincial Park, 50°55.717'N 114°07.307'W, sweep, goldenrod, 19.viii.2009 (G. Hull) [DBUC].

#### Family ALYDIDAE

##### *Protenor belfragei* Haglund

In Canada, previously reported from Saskatchewan east to Prince Edward Island (Maw et al. 2000), and widely distributed in the United States (Froeschner 1988a).

New provincial record. NS: 1♂, Cape Breton Co., Sydney, UCCB, 1.xi.1999 (M.I. Kerr) [UCCB]; 1♀, *id.*, 1.ix.1999 (B.H.W. MacIntosh) [UCCB].

#### Family ARTHENEIDAE

##### *Chilacis typhae* (Perris)

An alien species in Canada previously reported from British Columbia and Ontario (Scudder 2000; Maw et al. 2000; Scudder and Foottit 2006), as well as New Brunswick, Nova Scotia, Prince Edward Island (Wheeler 2002) and Quebec (Roch 2008). In the United States it is recorded from both the east (Wheeler and Fetter 1987) and the west (Wheeler and Stoops 1999). Wheeler (2002) also added 21 new U.S. state records for *C. typhae*.

New provincial record. AB: 1♀, Calgary, U. of Calgary, 11.vi.2009 (Tim Loh) [DBUC]. SK: 1♀, Battle Creek, near Merry Flats, 30.ix.2006 (D. Larson) [LC]; 2♂, Larson Ranch, Hwy. 21, 16 km S. Maple Creek, 24.ix.2008 (D. Larson) [CNC; LC]; 2♂ 1♀, *id.*, 2.viii.2009 (D. Larson) [CNC; LC].

#### Family CYMIDAE

##### *Cymus coriacipennis* (Stål)

In Canada, previously only reported from British Columbia (Scudder 1961; Maw et al. 2000). It is a Western Cordilleran species in the United States (Hamid 1975; Ashlock and Slater 1988).

New provincial record. SK: 1♂, Maple Ck., Hwy. 21, 16 km S, 8.vii.2003 (D. Larson) [LC]; 1♂, *id.*, 8.vi.2004 (D. Larson)

[CNC].

#### Family GEOCORIDAE

##### *Geocoris atricolor* Montandon

In Canada, previously only reported from British Columbia (Parshley 1919; Walley 1934; Maw et al. 2000) and Alberta (Walley 1934, Strickland 1953; Maw et al. 2000). A Western Cordilleran species in the United States (Ashlock and Slater 1988).

New provincial record. SK: 1♂, Cypress Hills Pk., Center Block, Highland Trail, 2.x.2008 (D. Larson) [LC]; 1♀, Larson Ranch, Hwy. 21, 16 km S. Maple Creek, 12.vii.2002 (D. Larson) [LC]; 1♂, *id.*, 17.ix.2008 (D. Larson) [LC]; 2♂, 1♀, *id.*, 24.ix.2008 (D. Larson) [CNC; LC]; 1♀, Maple Creek, 6 km N, 9 km E, sandy road allowance, 12.ix.2008 (D. Larson) [LC].

##### *Geocoris howardi* Montandon

In Canada, previously reported from Alberta, British Columbia, Northwest Territories and Yukon (Maw et al. 2000). Also known from Alaska, the species is distributed across boreal North America (Radio and Sweet 1982; Ashlock and Slater 1988).

New provincial records. MB: 1♀, Carberry, 29.vii.1953 (Brooks-Kelton) [CNC]; 1♀, Churchill, 31.vii.1937 (W.J. Brown) [CNC]; 1♂ 3♀, *id.*, 10.viii.1937 (W.J. Brown) [CNC]; 1♀, *id.*, 12.vii.1952 (J.G. Chillcott) [CNC]; 2♂ 1♀ 1 immature, Churchill, 4 km W, Akudik marsh, 58°44'47"N 94°06'47"W, gen'l. coll., 16.vii.2006 (Boreal & Arctic Entomol) [UM]; 1 immature, Churchill, 6 km E No. Stud. Ctr., 58°46'14"N 93°54'46"W, krumholz tundra, gen'l. coll. (39), 11.viii.2006 (Boreal & Arctic Entomol) [UM]; 1 immature, Churchill, 12 km W, Launch Rd., 58°45'18"N 93°59'04"W, bluffs + fen near A-frame, gen'l. coll. (84), 17.viii.2006 (Boreal & Arctic Entomol) [UM]; 1 immature, Churchill, 15 km S, Stud. Ctr., 58°37'00"N 93°49'15"W, gen'l. coll. near pond, Sample 16, 9.viii.2006 (Boreal & Arctic Entomol) [UM]; 1♂ 2♀ 1 immature, Churchill, 15 km S No. Stud. Ctr., 58°37'00"N 93°49'15"W, burned area-boreal for., gen'l. coll. (62), 14.viii.2006 (Bor. & Arc. Entomol.) [UM]; 1♀, Turtle Mt., 28.vii.1953 (Brooks-Kelton) [CNC]. NS: 1♀, S. Berwick,

22.viii.1963 (V.R. Vickery) [LM]. ON: 1♂ 3♀, Black Hawk, 3.viii.1960 (Kelton & Whitney) [CNC]; 1♀, Eagle River, 11.viii.1960 (Kelton & Whitney) [CNC]; 1♂, Hastings Co., 29.viii.1954 (J.F. Brimley) [CNC]; 3♀, Kapuskasing, 18.vii.1961 (G. Brumpton) [CNC]; 5♂, Little Current, 9.vii.1961 (G. Brumpton) [CNC]; 1♂, Nestorville, 24.vi.1965 (K.P. Butler) [LM]; 2♀, One Sided Lake, 1.viii.1960 (Kelton & Whitney) [CNC]; 3♀, *id.*, 2.viii.1960 (Kelton & Whitney) [CNC]; 1♀, Sioux Narrows, 6.viii.1960 (Kelton & Whitney) [CNC]. QC: 2♂ 1♀, Kazubazua, 18.viii.1931 (G.S. Walley) [CNC]; 1♀, *id.*, 25.vii.1933 (G.S. Walley) [CNC]; 1♂, Laniel, 21.viii.1932 (W.J. Brown) [CNC]. SK: 1♂ 1♀, Christopher Lake, 13.vii.1959 (A. & J. Brooks) [CNC]; 2♀, *id.*, 15.vii.1959 (A. & J. Brooks) [CNC]; 1♂, Cypress Hills, E. Block, Ambrose Place, 25 km SE Maple Creek, 10.vii.2006 (D. Larson) [LC]; 2♂ 1♀, Cypress Hills Pk., Center Block, Highland Trail, 2.x.2008 (D. Larson) [LC]; 1♀, Saskatoon, 22.vii.1949 (L. Konotopetz) [CNC]; 1♀, Torch River, 23.viii.1950 (L.A. Konotopetz) [CNC].

*Geocoris pallens* Stål

In Canada, previously only reported from Alberta, British Columbia (Forbes 1900; Torre-Bueno 1946; Slater 1964; Ashlock and Slater 1988; Maw et al. 2000). *G. pallens* has been collected from most of the western United States, and has a range extending eastward to Indiana, Illinois, Missouri and Arkansas (Readio and Sweet 1982), but also occurs from Mexico to Central America and in Hawaii (Ashlock and Slater 1988).

New provincial record. SK: 1♂, Larson Rch., 16 km S Maple Creek, Hwy. 21, 5.viii.2002 (D. Larson) [CNC].

*Geocoris uliginosus* (Say)

In Canada, reported from Newfoundland (Lindberg 1958), Ontario (Walley 1934) and Quebec (Walley 1934; Moore 1944, 1950; Béique and Robert 1963; Larochelle 1984; Roch 2008). *G. uliginosus* var. *speculator* Montandon was synonymized with *G. uliginosus* by Readio and Sweet (1982).

Early records for British Columbia

(Downes 1927), repeated by Walley (1934) and noted by Lindberg (1958), are incorrect. Downes (1927) reported the species from Merritt on August 11, 1923 by R. Hopping, and also at Victoria. I have been unable to locate the Merritt material taken by Hopping on that date, but other specimens now in the CNC collected in 1923 by R. Hopping have been found to be *G. bullatus* (Say). Also, specimens in the CNC from Victoria, 5.ix.1923 (K.F. Auden) also prove to be *G. bullatus*.

In North America, in general *G. uliginosus* has a range that extends from the Gulf Coast north to southern Canada, and from the east coast west to the foothills of the Rocky Mountains in Colorado (Readio and Sweet 1982; Ashlock and Slater 1988). Also known from Cuba (Alayo 1973) and the West Indies (Baranowski and Slater 2005).

New provincial record. NB: 1♂, Fundy Nat. Pk., 8.viii.1954 (J.F. Brimley) [CNC].

**Family LYGAEIDAE**

Subfamily LYGAEINAE

*Melacoryphus admirabilis* (Uhler)

This species and genus is keyed by Slater (1992) and is macropterous with a black membrane with a narrow white margin, and with clavus and corium black for most part, with costal margin and apical third of corium red. The species is widely distributed in the United States and occurs in Mexico (Ashlock & Slater 1988).

New Canadian record. SK: 1♀, Grasslands Natl. Pk., Tp. 1 & 2, Rge. 6 & 7, W3, EBGE sweep samples, 29-30.vii.2008 [CNC].

Subfamily ORSILLINAE

*Nysius angustatus* Uhler

Widely distributed across Canada, and previously reported from the Northwest Territories east to New Brunswick (Maw et al. 2000), and known from Mexico and most of the United States (Ashlock and Slater 1988).

New provincial record. NS: 2♂ 2♀, Coldbrook, 22.viii.1963 (V.R. Vickery) [LM].

*Nysius niger* Baker

In Canada, previously reported from

Yukon and the Northwest Territories to Newfoundland (Maw et al. 2000), but not previously recorded from Nova Scotia and Prince Edward Island. Recorded from most of the United States, Bermuda, Mexico to Central America, and the West Indies (Ashlock and Slater 1988), although not noted from the latter by Baranowski and Slater (2005).

New provincial record. NS: 3♀, Kentville, 15-17.vii.1966 (L.A. Kelton) [CNC].

*Nysius tenellus* Baker

In Canada, previously only reported from British Columbia (Barber 1947; Maw et al. 2000). However, the species is recorded from Florida, most of the western United States, Mexico, Central America and the West Indies (Barber 1947; Ashlock and Slater 1988; Baranowski and Slater 2005).

New provincial record. SK: 1♂, Jones Peak, 9 km W, Eastend, 49°30'N 108°57'W, 14.viii.2005 (Larson) [CNC].

**Family OXYCARENIDAE**

*Crophius bohemani* (Stål)

In Canada, previously only reported from British Columbia (Downes 1927; Walley 1934; Barber 1938; Maw et al. 2000). The record for the "North West Territories" (Gibson 1911) is obviously an error, and was not included by Barber (1938). In the United States *C. bohemani* is a Western Cordilleran species.

New provincial record. SK: 1♂1♀, Cypress Hills Park, Center Bloc, Highland Trail, 25.ix.2008 (D. Larson) [CNC; LC]; 1♀, Cypress Hills, Center Block, War Lodge Coulee, 29.ix.2008 (D. Larson) [LC].

**Family RHYPAROCHROMIDAE**

Subfamily RHYPAROCHROMINAE

Tribe DRYMINI

*Eremocoris ferus* (Say)

In Canada, previously reported from British Columbia, Nova Scotia, Ontario and Quebec (Maw et al. 2000). Sweet (1977) elevated *Eremocoris borealis* (Dallas) from synonymy with *E. ferus* and stated that this species has a Carolinian and Austroriparian Zone distribution extending from the Gulf of Mexico in the eastern United States north

to lowland locations in New England, with the northern records being from Massachusetts, New Hampshire, Connecticut and southern New York. He also noted that specimens from Illinois, Iowa and Indiana were all referable to *E. ferus*, and appeared to mark the northern limit of the distribution of the species in the Midwest. Furthermore, Sweet (1977) stated that he had not seen *E. ferus* specimens from west of the 100° meridian, although relictual populations in Texas might indicate that the species extends west of this meridian.

Over the past few years I have studied collections of *Eremocoris* from the west, and have specimens that I consider to be *E. ferus* from not only British Columbia and Saskatchewan, but also from Arizona, California, Idaho, Montana, Oregon, Utah and Washington state.

New provincial record. SK: 1♀, Cypress Hills Pk., C. Block, Ski Lodge, 25.vi.2004 (D. Larson) [CNC]; 1♀, Larson Ranch, Hwy. 21, 16 km S. Maple Creek, 16.v.2009 (D. Larson) [LC].

Tribe MEGALONOTINI

*Megalonotus sabulicola* (Thomson)

An alien species, in Canada previously reported from British Columbia (Scudder 1960, 1961; Asquith and Lattin 1991), Ontario (Maw et al. 2000) and Quebec (Scudder and Footitt 2006). Asquith and Lattin (1991) discussed the occurrence of this species in the Pacific Northwest, with records in the United States shown for California, Idaho, Oregon, Utah and Washington. Wheeler (1989) also discussed the occurrence of *M. sabulicola* in the eastern United States, with new records for Delaware, New Jersey, Pennsylvania, Rhode Island, Virginia and West Virginia, and additional localities in Maryland and New York. I have also collected *M. sabulicola* in Montana (Scudder 2010). Wheeler (1989) found that in the mid-Atlantic region of the United States, this bug feeds mainly on the fallen seeds of the spotted knapweed, *Centaurea biebersteinii* DC (= *C. maculosa* auct. non Lam).

New provincial record. SK: 1♂, Larson Ranch, Hwy. 21, 16 km S Maple Creek,

10.v.2008 (D. Larson) [LC]; 4♂ 2♀, *id.*, flooded grass, 12.vi.208 [CNC; LC].

Tribe MYODOCHINI

*Neopamera albocincta* (Barber)

To date in Canada, only reported from Ontario (Scudder 1985; Maw et al. 2000). Recorded from most of the eastern United States to Texas in the south, as well as the West Indies, and Mexico to South America (Ashlock and Slater 1988).

New provincial record. QC: 1♀, Riv. Du Sud Co., Iberville, CH322, 31.vii.1975 (N. Dorion) [CNC]; 1♂, *id.*, CH500, 26.viii.1974 (N. Dorion) [CNC]; 1♀, *id.*, CH503, 26.viii.1975 (N. Dorion) [CNC].

*Sisamnes claviger* (Uhler)

So far only recorded from British Columbia in Canada (Scudder 1985, 1992, 1993, 1994; Maw et al. 2000), but widely distributed in the United States (Ashlock and Slater 1988).

New provincial record. SK: 2♀, Cypress Hills, Center Block, War Lodge Coulee, 29.ix.2008 (D. Larson) [CNC; LC]; 2♀, Cypress Hills Pk., Center Block, Highland Trail, 14.iv.2009 (D. Larson) [CNC; LC]; 3♀, Larson Ranch, Hwy. 21, 16 k S Maple Creek, 10.v.2008 (D. Larson) [CNC; LC]; 1♂ 1♀, *id.*, 24.ix.2008 (D. Larson) [LC]; 1♂, Sand Hills, 7 km W Piapot, 4.vii.2009 (D. Larson) [LC].

Tribe STYGNOCORINI

*Stygnocoris rusticus* (Fallén)

In Canada, this alien is recorded from British Columbia east to Newfoundland (Maw et al. 2000), but until now there have been no records for either Manitoba or Saskatchewan.

Asquith and Lattin (1991) mapped the restricted distribution in the Pacific Northwest, with records shown for Oregon and Washington. Wheeler (1983) reviewed the more extensive distribution in the eastern United States.

New provincial record. SK: 1♂, Cypress Hills, Center Block, War Lodge Coulee, 29.ix.2009 (D. Larson) [LC]; 1♂, Cypress Hills Park, Center Block, Highland Trail, 25.ix.2008, (D. Larson) [CNC]; 1♂, Frenchman R. Valley, Cypress L., 20.viii.2009, (D. Larson) [LC]; 1♂, Larson Ranch, Hwy. 21, 16 km S Maple Creek, 23.ix.2008, (D. Larson) [LC]; 2♂ 1♀, *id.*, 24.ix.2008 (D. Larson) [CNC; LC].

Tribe UDEOCORINI

*Neosuris castanea* (Baker)

In Canada, to date reported only from British Columbia (Scudder 1993, 1994; Maw et al. 2000). Recorded from the Western Cordilleran states, to the south and Mexico (Ashlock and Slater 1988).

New provincial record. SK: 1♀, Maple Ck., Hwy. 21, 16 km S, 30.vii.2003 (D. Larson) [LC]; 1♂, Old-Man-on-his-Back Ridge, 49°11'N 109°16'W, 5.ix.2009 (D. Larson) [CNC].

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